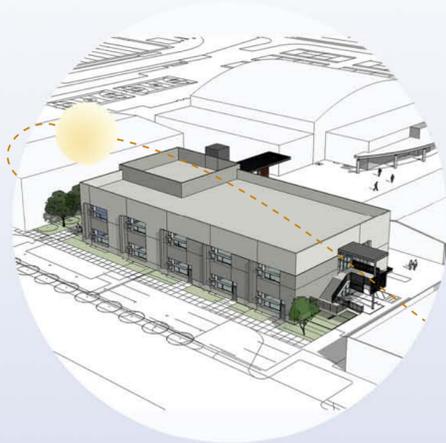




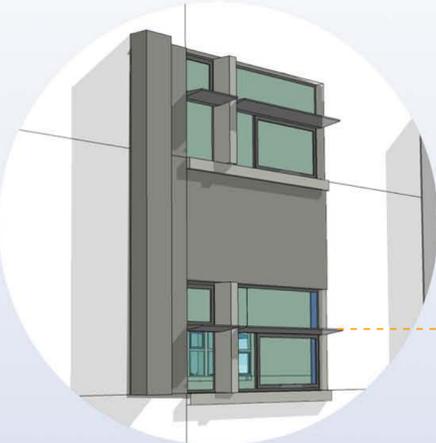
MAIN ENTRY



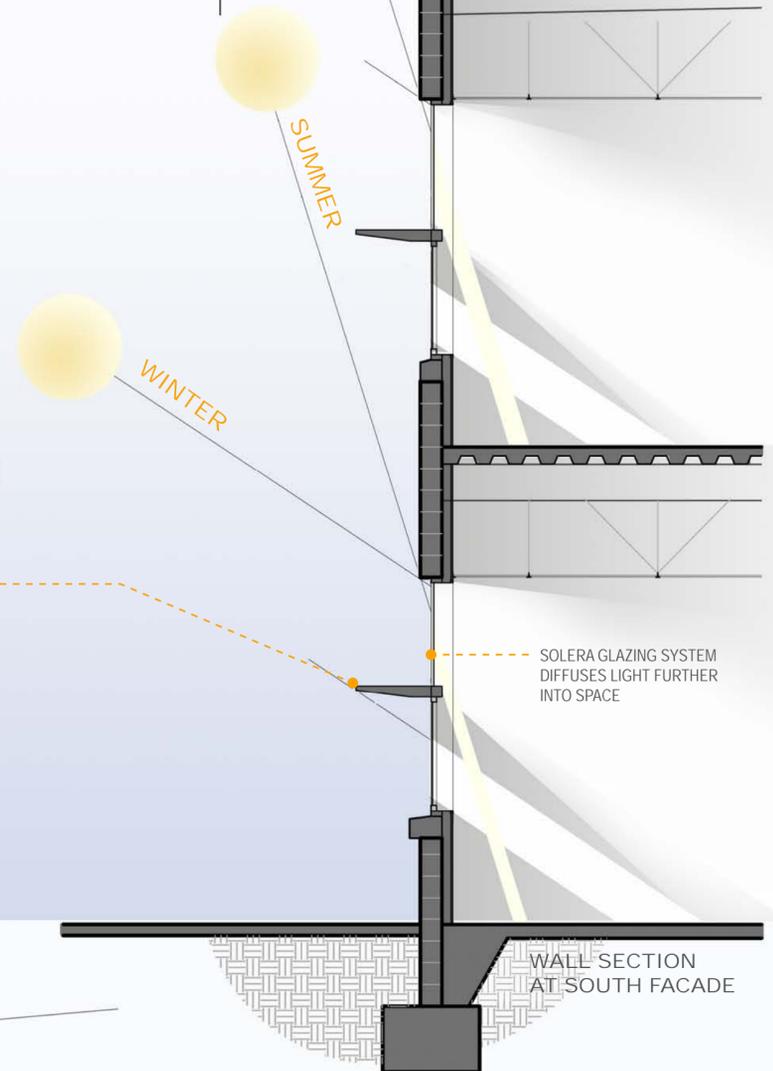
**SITE**  
SUN CONTROL STRATEGIES  
IMPLEMENTED AT  
SOUTH FACING FACADE



**FLOOR PLAN**  
NORTH BUILDING ORIENTATION  
MAXIMUM  
WINDOW EXPOSURE FOR  
ALL CLASSROOMS



**SUN SHADES**  
COMBINATION OF  
VERTICAL AND HORIZONTAL  
SUN SHADES  
AT TYPICAL SOUTH FACING WINDOWS



SOLERA GLAZING SYSTEM  
DIFFUSES LIGHT FURTHER  
INTO SPACE

WALL SECTION  
AT SOUTH FACADE



NORTH ELEVATION

- 27% ENERGY REDUCTION OVER 2005 TITLE 24
- ENERGY STAR RATED COOL ROOF
- PASSIVE VENTILATION
- HIGH EFFICIENCY ENVELOPE
- HVAC INTERCONNECTED W/ OPERABLE WINDOWS
- RESPECT TO SOLAR ORIENTATION
- TEMPERATURE AND LIGHTING CONTROLS IN ALL ROOMS

**DESCRIPTION:**

Sweetwater High School Expansion is a 23,000 SF 2-story concrete masonry building that will include 15 classrooms, two science labs, three special education classrooms, and three learning resource centers. In addition to participating in the Energy Star Challenge, the project was also designed to be a CHPS (The Collaborative for High Performance School) certified school, despite its limited budget. The success of the project is partially due to a design that utilizes the 'gifts of the site'. Located 1.5 miles from the Pacific Ocean on the existing Sweetwater High School campus, operable windows take advantage of the ocean breezes and reduce the need for HVAC, while proper building orientation and an efficient building envelope maximize natural daylight while reducing solar heat gain.

**ENERGY STAR Challenge Criteria:**

- Energy Use Intensity (EUI) = 93.2 kBtu / SF / yr
- Percent CO2 reduction = 18%
- ENERGY STAR design rating = 75

**Savings Statistics (compared to an average building EPA rating of 50)**

- Energy savings = 479,192 kBtu
- CO2 savings = 57,700 lbs CO2



**DESIGNED TO  
EARN THE  
ENERGY STAR**

The estimated energy performance for this design meets US EPA criteria. The building will be eligible for ENERGY STAR after maintaining superior performance for one year.